

**DETERMINATION OF FATTY ACID IN SEVERAL DAIRY  
PRODUCTS BY GAS CHROMATOGRAPHY**

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This Final Year Project Report entitled “**Determination of fatty acid in several dairy products by Gas Chromatography**” was submitted by Mohd.Saufi bin Shamsudin, in partial fulfillment of the requirements for the Degree of Bachelor Science (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by



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## **ABSTRACT**

Fatty acid is present in samples like butter, margarine and peanut butter. Fatty acids are not sufficient volatile in GC analysis. In addition, acids is very relative, reactive and are too polar to be well separated by gas chromatography. Direct GC analysis of acids tends to cause peak tailing due to absorption and no specific interaction with the column. Derivation is the process chemically modifying a compound to new compound has properties that are suitable to GC analysis. This experiment introduces a derivatization procedure usually used for fat analysis in which non volatile fatty acids are chemically converted to the corresponding volatile methyl ester (FAME). Thus resulting volatile mixture that can be analyzed by gas chromatography.